

Phase-locked Loop with Analog Phase Rotator

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5 ABSTRACT OF THE DISCLOSURE

- A phase-locked loop includes a phase detector which receives an input signal and a first internal periodic signal and provides a phase signal indicative of a phase difference between the input signal and the internal signal.
- 10 A rotator then receives the phase signal and provides first and second periodic signals each having a frequency that is a function of the phase difference, the first and second periodic signals being 90 degrees out of phase with each other. An interpolator circuit then linearly combines the
- 15 first and second periodic signals with third and fourth periodic signals to provide the first internal periodic signal. The interpolator circuit may provide a second internal periodic signal that is 90 degrees out of phase relative to the first internal periodic signal. The phase-
- 20 locked loop may further include a low-pass filter provided between the phase detector and the rotator.